

# Work Order ID 70430

Wednesday, June 08, 2011 8:07:23 AM



Page 1

Item ID: D3211-1B

Accept

Revision ID: PRELIM

Item Name: Bracket

Start Date: 6/9/2011 Start Qty: 1.00

Required Date: 6/10/2011 Req'd Qty: 1.00

Reference:

Cust Item ID:

Customer:

Setup Start

Stop

Run Start

Stop

~~PRELIMINARY ISSUE~~

Approvals: Process Plan: mc Date: 11-06-08

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3211

PB1

100

0.00



FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3211 ☐ Dwg Rev: PB1 ☐ Prog Rev: PB1 ☐ 2-  
Debur if necessary

2024 .062

~~B11-6-8~~

Scram

B11-6-80 (4)

(1)

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

~~B11-6-8~~

Scram

B11-6-10 (4)

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

- inspector to PB1  
Day only  
Sutcliffe (C)

- inspector to PB1  
Day only  
Sutcliffe

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Item ID: D3211-1B

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Setup Start



Revision ID: PRELIM

Stop



Item Name: Bracket

Start Date: 6/9/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 6/10/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

0.00



Small Fab

Small Fab

Memo

0.00

Small Fab

Debur

*W/ASO*

*P/B*

140

0.00



NC BRAKE

Brake NC

Memo

0.00

Brake NC

Bend D3211-1 Stack as per Dwg D3211

*SD 11/06/09*

*1*

150

0.00



QC5- Inspect part completeness to step on W/O

QC

Memo

0.00

Quality Control

*Day only*

*8/10/12* *(te)*

*-inspected to P/B*

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		<i>Scrap</i>					

Part No: D3211-1B PAR #: \_\_\_\_\_ Fault Category: Small Hole NCR: Yes No DQA: 11 Date: 11.06.21  
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: OK Date: 11/06/21

NCR: <u>70430</u>		WORK ORDER NON-CONFORMANCE (NCR) # <u>212</u>						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>11.06.09</u>	<u>140</u>	PART CRACKED ON FIRST BED.  R.C.: PROCESS	<u>11.06.09</u> <u>QS1042</u>	SCRAP + REPLACE. MAKE GT 2 OR 3.  <u>B: 117392 + 0174</u>	<u>11.06.10</u> <u>11/06/10</u>	<u>11.06.09</u> <u>QS1042</u>	<u>5</u> <u>ab666</u>	
				<u>discard remaining parts</u>	<u>11/06/10</u>	<u>2</u>		

NOTE: Date & initial all entries

# Work Order ID 70430

Wednesday, June 08, 2011 8:07:23 AM



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Item ID: D3211-1B

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Bracket

Start Date: 6/9/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 6/10/2011 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

*IX* *φ* *M/L 11/06/10*

170

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

*3250°F* FINISH TIME:

*9:20* *9:50*

*IX* *φ* *M/L 11/06/10*

180

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

*I* *φ* *M/L 11/06/10*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 70430

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Page 4

Item ID: D3211-1B

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Start Date: 6/9/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 6/10/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

190

Identify as per dwg & Stock Location: \_\_\_\_\_

0.00



Packaging

Memo

0.00

Packaging

*Handwritten signature*

200

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

*Handwritten date and initials*  
11/6/15  
NF  
11-06-14

POSITIVE RECALL

EFFECTIVE 11/06/08 AUTH U

RELEASED J DATE 11/06/14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



## Picklist Print

Wednesday, June 08, 2011 8:07:21 AM

Page 1

**Work Order ID:** 70430



**Parent Item:** D3211-1B





**Parent Item Name:** Bracket

**Start Date:** 6/9/2011**Required Date:** 6/10/2011

**Start Qty:** 1.00

**Required Qty: 1.00**

**Comments:** IPP revA 11.06.07 New issue EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.063		Purchased	No			100	sf	271.0700	1.4	1.473684			
 													
2024-T3 .063 sheet													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT022		271.07							
				113867		0.19							
				117018		28.38							
				117392		242.5							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# FIRST ARTICLE INSPECTION CHECKLIST

## Prototype

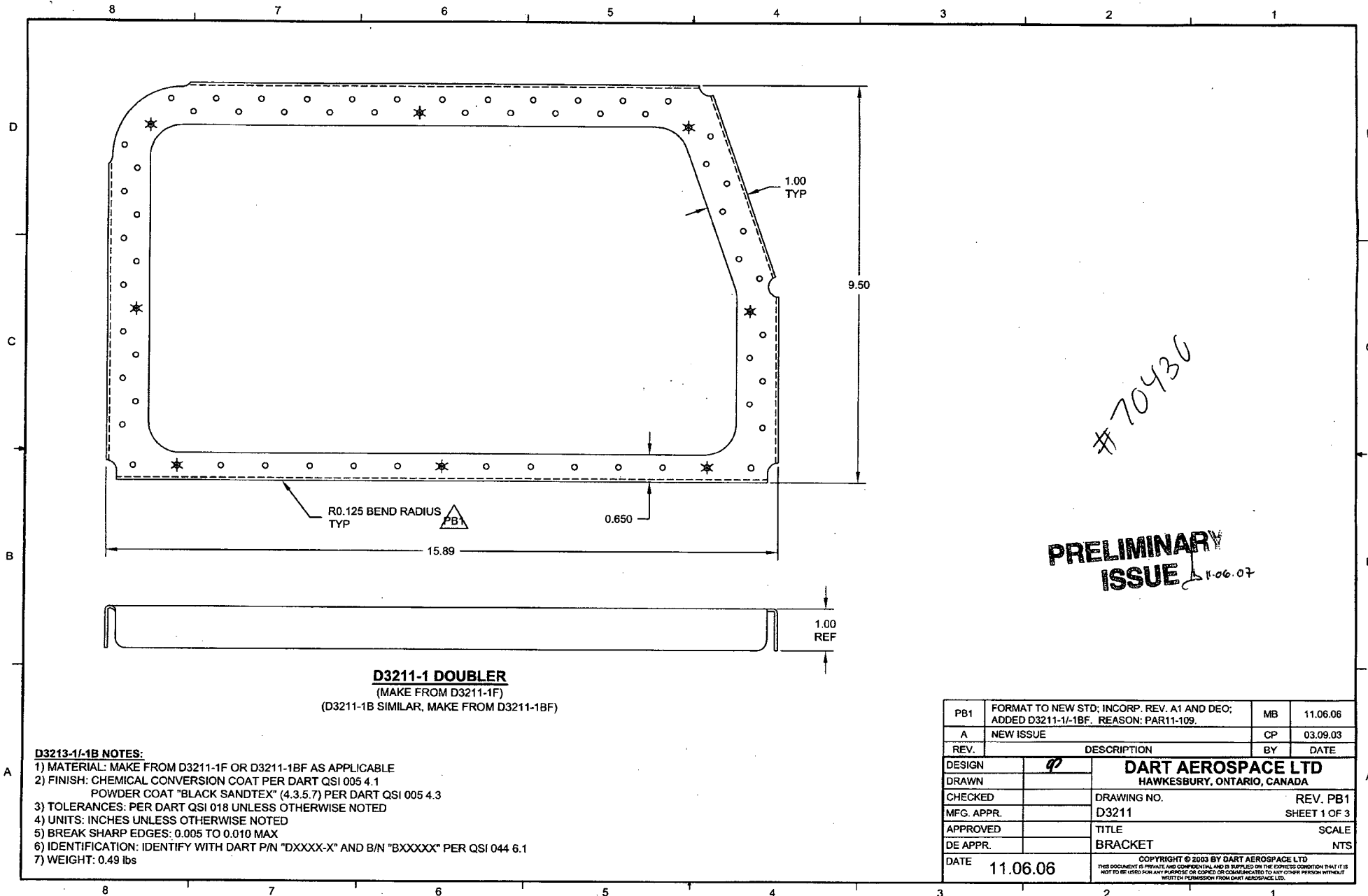
DART AEROSPACE LTD		Work Order:	70432
Description: Bracket 6		Part Number:	D3211-1B (Bent)
Inspection Dwg: D3211 Rev: PB1		Page 1 of 1	

☒ **First Article**      ☐ **Prototype**

[illegible]

Measured by: <i>SS u/c/d/c</i>	Audited by: <i>D</i>	Prototype Approval:	N/A
Date:	Date: <i>11/06/10</i> <i>10 PB/Day only</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	



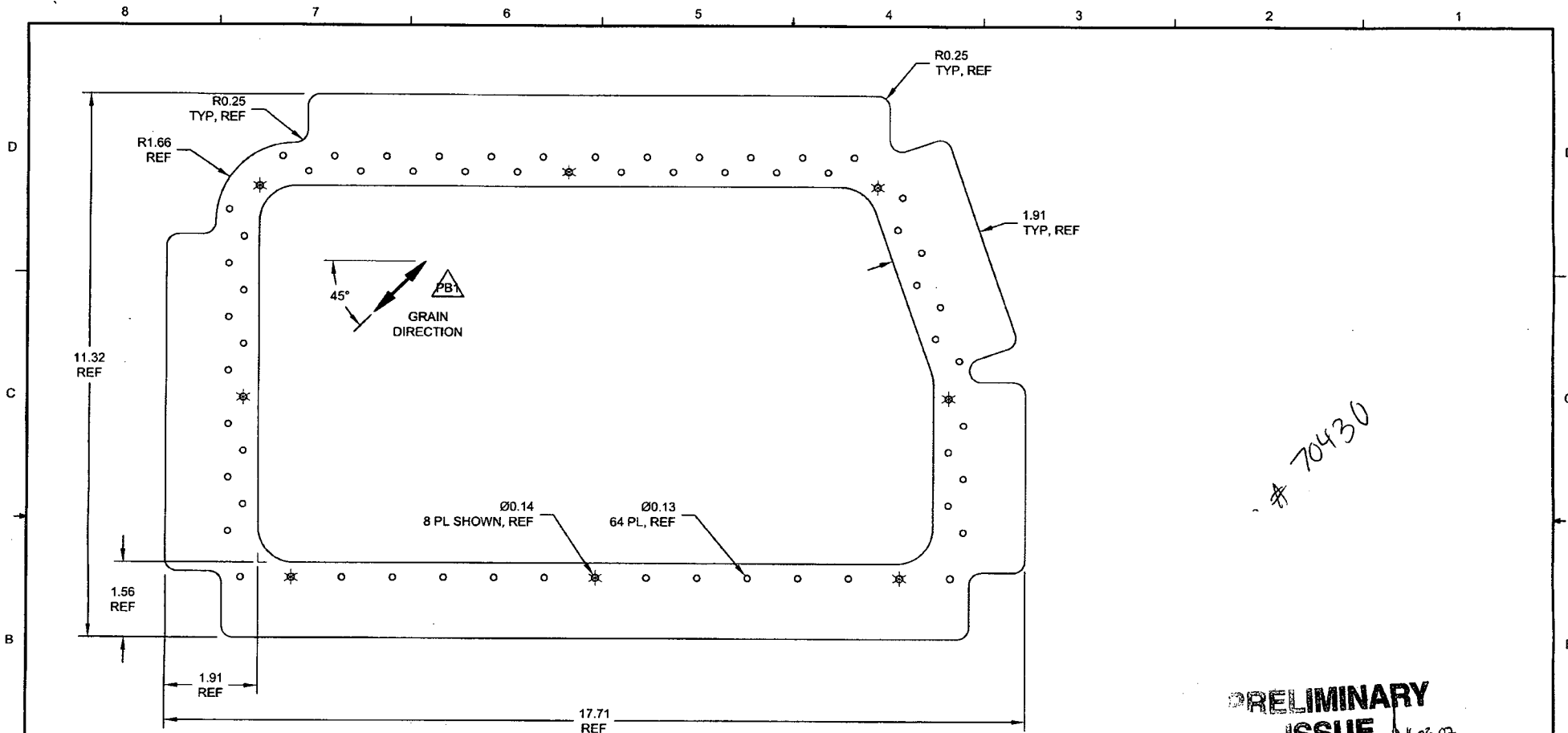
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# **D3211-1F FLAT PATTERN**

## **D3211-1F NOTES:**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063 THICK, PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 REF. DART SPEC M2024T3S.063
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.49 lbs
- 8) MAKE FROM D3211-1F\_REV.B.DXF AND CHECK PER D3211-1T1

DESIGN	7	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PB
MFG. APPR.		D3211	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NT
DATE	11.06.06	COPYRIGHT © 2003 BY DART AEROSPACE LTD	
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

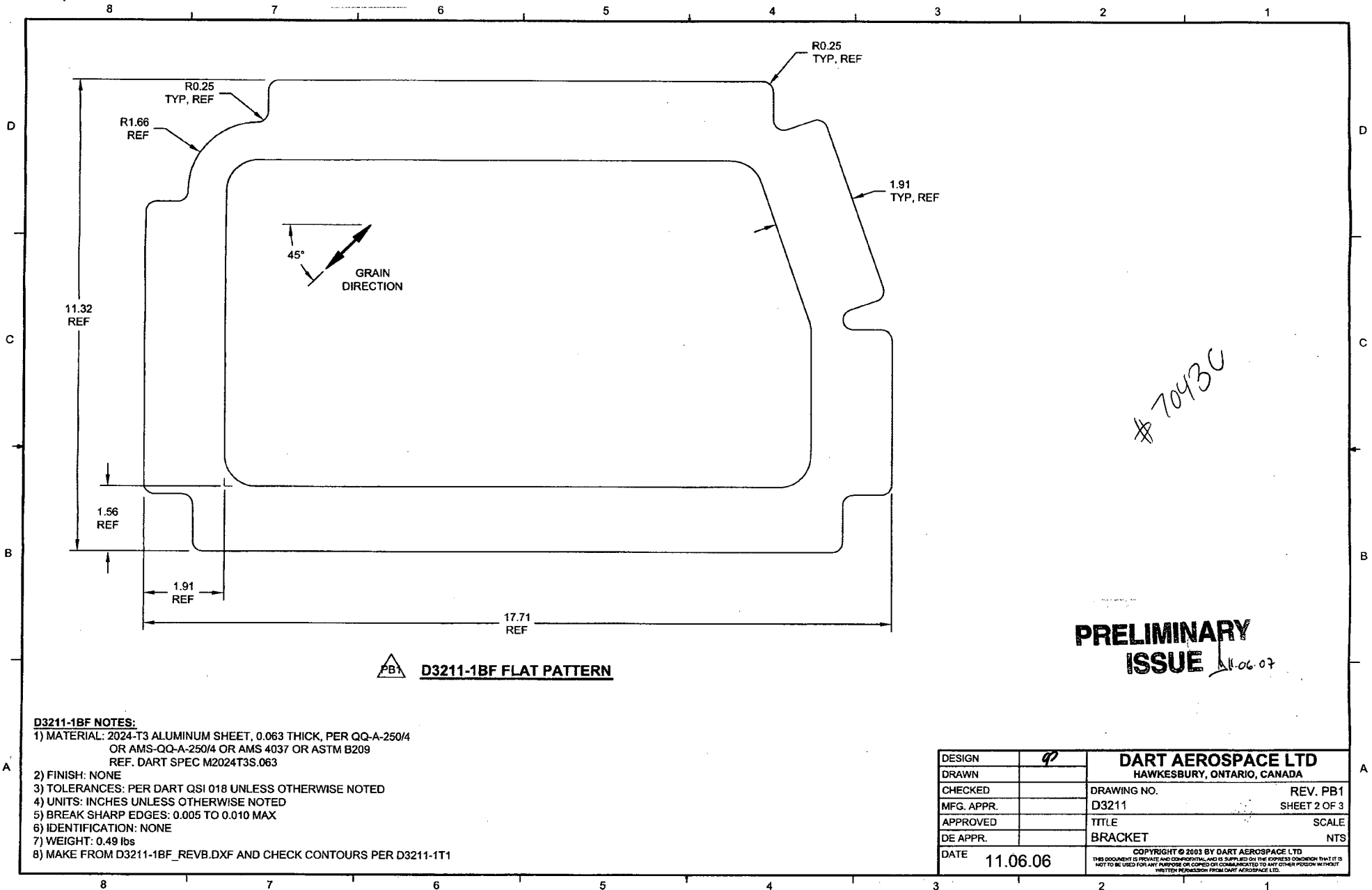
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries





**D3211-1BF NOTES:**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063 THICK, PER QQ-A-250/4  
OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209  
REF. DART SPEC M2024T3S.063
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.49 lbs
- 8) MAKE FROM D3211-1BF\_REV.B.DXF AND CHECK CONTOURS PER D3211-1T1

DESIGN	<i>4</i>	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PB1
MFG. APPR.		D3211	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
DATE	11.06.06	COPYRIGHT © 2003 BY DART AEROSPACE LTD	
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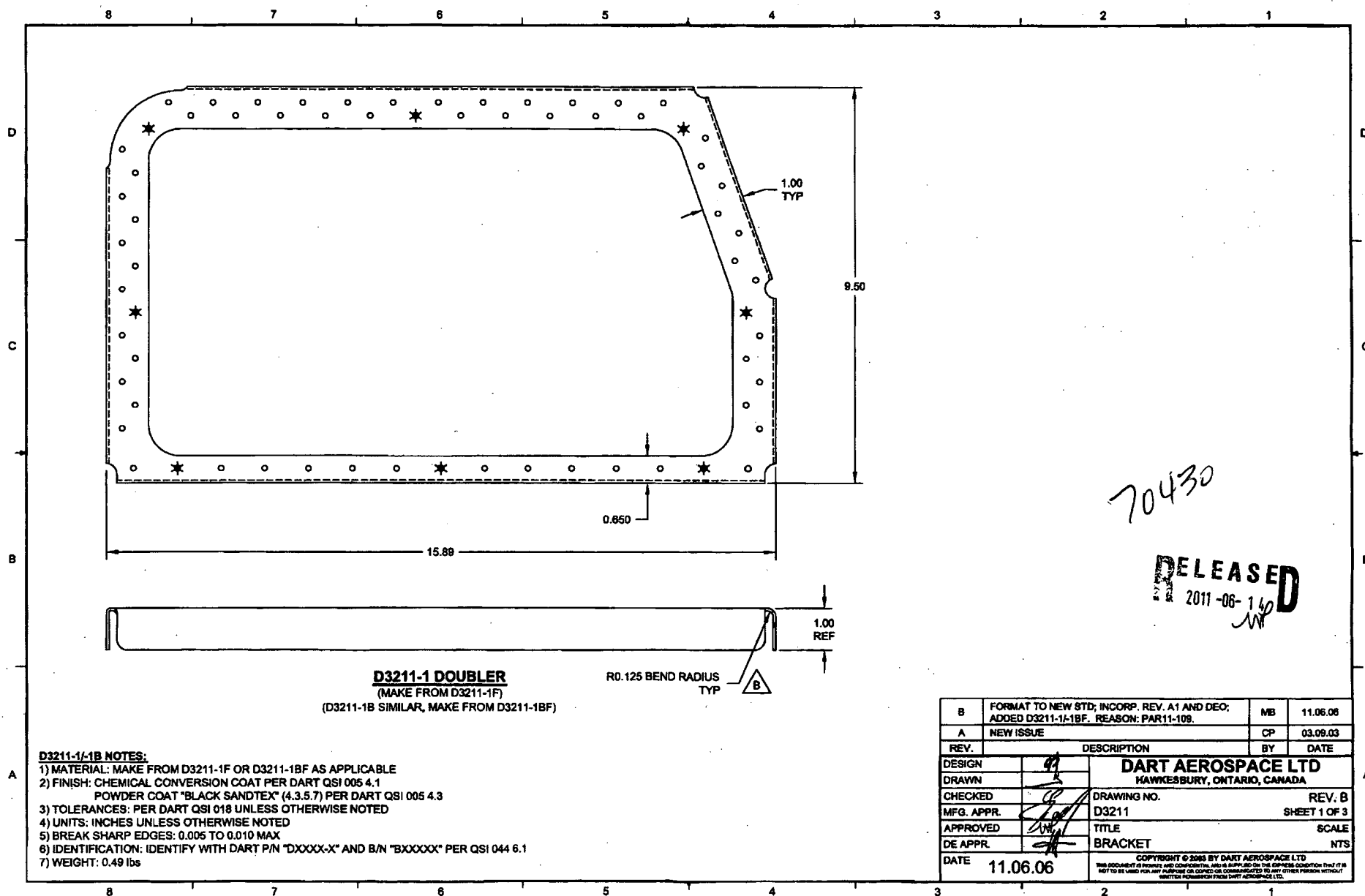
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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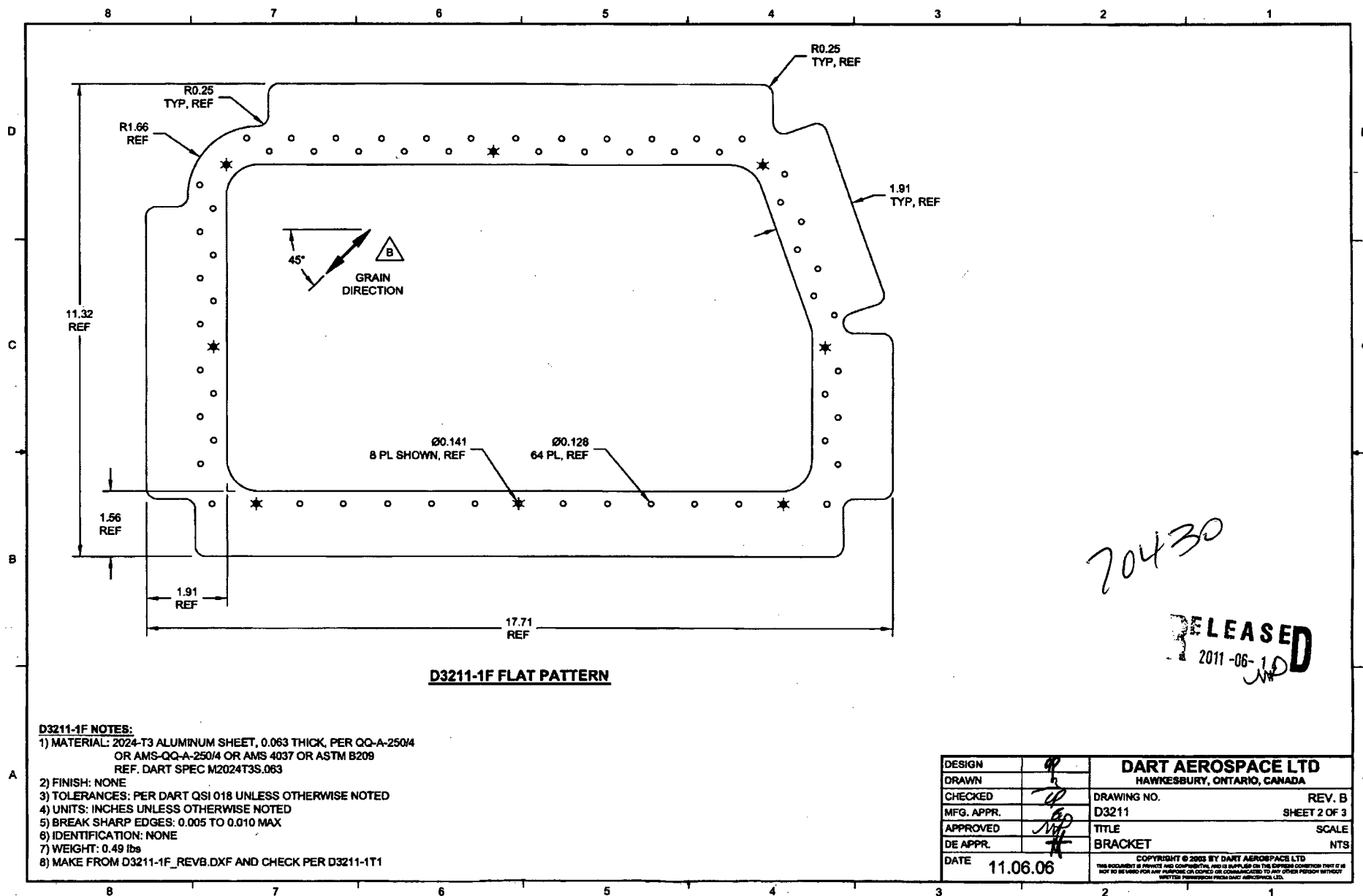
70430

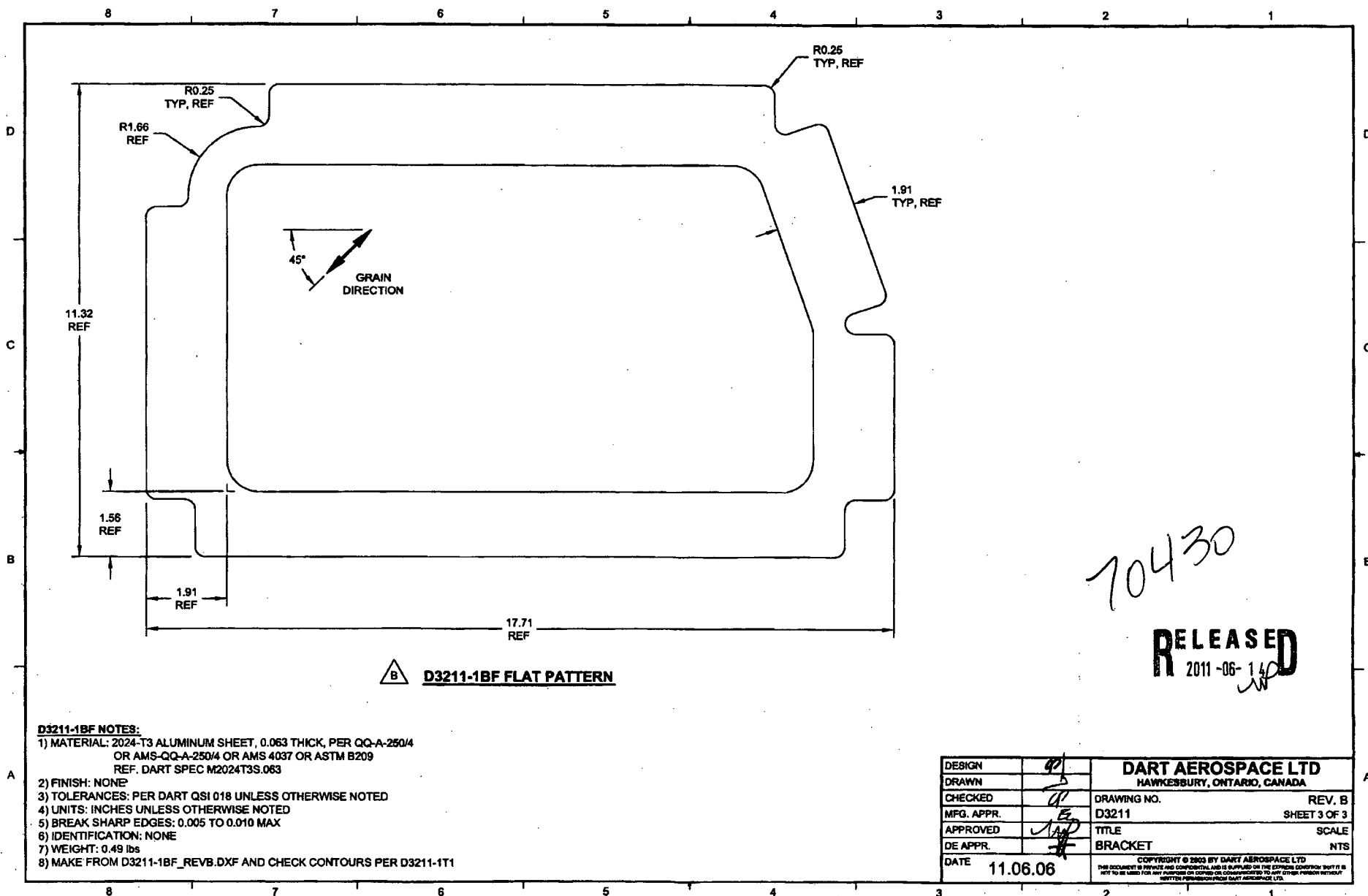
RELEASED  
2011-06-14

B	FORMAT TO NEW STD; INCORP. REV. A1 AND DEC; ADDED D3211-1-1BF. REASON: PAR11-109.	MB	11.06.06
A	NEW ISSUE	CP	03.09.03
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.06.06		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. B
DRAWING NO. D3211	SHEET 1 OF 3
TITLE BRACKET	SCALE NTS

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2011-06-14